IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1.   (Previously Presented) A data transmission system for distributing predetermined data through transmission paths, the data transmission system comprising:

a data transmitting apparatus including data supply means for supplying the data, transmission control means for dividing the data supplied by the data supply means into a predetermined number of data files to distribute the divided divisional data files, and data transmitting means for transmitting each of the distributed divisional data files respectively through a predetermined transmission path,

wherein the data transmitting apparatus stores the distributed divisional data files in a private section of a respective transport stream; and

a data receiving apparatus including data receiving means for receiving the divisional data files transmitted through the predetermined transmission paths, data receiving control means for restoring the received divisional data files into original data, and data output means for outputting the restored data,

wherein the data receiving apparatus extracts the divisional data files from the private section of the transport stream; and

wherein said divisional data files can be restored into original data when a predetermined number of packets are removed by said data receiving apparatus from a group of packets generated by said data transmitting apparatus.

2.   (Original) The data transmission system as set forth in claim 1, wherein the data supply means stores data files generated in advance, to deliver the stored data files as occasion demands.

3.   (Original) The data transmission system as set forth in claim 1, wherein the data supply means supplies data generated in real time.

4.   (Original) The data transmission system as set forth in claim 1, wherein the transmission control means of the data transmitting apparatus divides the data into data files corresponding to a number of transmittable paths in advance, to distribute each of the divisional data files respectively to the data transmitting means connected to the transmittable paths.

5.   (Original) The data transmission system as set forth in claim 1, wherein the transmission control means of the data transmitting apparatus divides the data in units of a predetermined transmission frame to distribute each of the divisional data files respectively to the data transmitting means.

6.   (Original) The data transmission system as set forth in claim 1, wherein the data transmitting means of the data transmitting apparatus further detects a state as to whether the transmission path connected to the transmitting means can be used or not, and transmits the detected state serving as transmission path information to the transmission control means, and

wherein the transmission control means of the data transmitting apparatus further

collects the transmission path information to calculate a number of usable transmission paths to

divide the data in correspondence the calculated number to distribute each of the divisional data

files respectively to the usable data transmitting means.

7.   (Original) The data transmission system as set forth in claim 1, wherein

each of the transmission paths is formed by a plurality of transponders mounted in satellite.

8.   (Previously Presented) A data transmitting apparatus for transmitting

predetermined data through transmission paths, the data transmitting apparatus comprising:

data supply means for supplying the data;

transmission control means for dividing the data supplied by the data supply

means into a predetermined number of data files to distribute the divided divisional data files;

and

data transmitting means for transmitting each of the distributed divisional data

files respectively through a predetermined transmission path,

wherein the distributed divisional data files are stored in a private section of a

respective transport stream; and

wherein said distributed divisional data files can be restored into original data

when a predetermined number of packets are removed by a data receiving apparatus from a

group of packets generated by said data transmitting apparatus.

9.   (Previously Presented) A data receiving apparatus for receiving

predetermined data through transmission paths, the data receiving apparatus comprising:

data receiving means for receiving a plurality of divisional data files transmitted

through the plural predetermined transmission paths;

data receiving control means for restoring the plurality of the received divisional

data files into original data; and

data output means for outputting the restored data,

wherein the divisional data files are extracted from a private section of a transport

stream; and

wherein said divisional data files can be restored into original data when a

predetermined number of packets are removed by said data receiving apparatus from a group of

packets generated by a data transmitting apparatus.

10.   (Previously Presented) A data transmission method for distributing

predetermined data through transmission paths, the data transmission method comprising the

steps of:

inputting the predetermined data to divide the input data into a predetermined

number of data files to generate divisional data files to transmit each of the divisional data files

through a predetermined transmission path,

storing the divisional data files in a private section of a respective transport

stream;

receiving each of the divisional data files transmitted through the predetermined

transmission paths to restore the received divisional data files into original data to output the

restored data;

extracting the divisional data files from the private section of the transport stream;

and

restoring said divisional data files into original data when a predetermined

number of packets are removed from a group of packets.

11.   (Previously Presented) A data transmission system for transmitting

moving picture data files through transmission paths, the data transmission system comprising:

a data transmitting apparatus including data dividing means for dividing one

moving picture data file into a plurality of divisional distribution data files which are restored to

an original data file by synthesis, and data transmitting means for transmitting each of the

divided divisional distribution data files to each of a plurality of transmission paths which are

different from each other,

wherein the data transmitting apparatus stores the divided divisional distribution

data files in a private section of a respective transport stream; and

a data receiving apparatus including data receiving means for receiving the plural

divisional distribution data files from the plurality of the different transmission paths, and

restoring means for synthesizing the plurality of the received divisional distribution data files to

restore one moving picture data file,

wherein the data receiving apparatus extracts the divisional distribution data files

from the private section of the transport stream; and

wherein said divisional distribution data files can be restored into original data

when a predetermined number of packets are removed by said data receiving apparatus from a

group of packets generated by said data transmitting apparatus.

12.   (Previously Presented) A data transmitting apparatus for transmitting

moving picture data files through transmission paths, the data transmitting apparatus comprising:

data dividing means for dividing one moving picture data file into a plurality of

divisional distribution data files which are restored to an original data file by synthesis; and

data transmitting means for transmitting each of the divided divisional distribution

data files to each of a plurality of transmission paths which are different from each other,

wherein the divided divisional distribution data files are stored in a private section

of a respective transport stream; and

wherein said divided divisional distribution data files can be restored into original

data when a predetermined number of packets are removed by a data receiving apparatus from a

group of packets generated by said data transmitting apparatus.

13.   (Previously Presented) A data receiving apparatus for receiving moving

picture data files through transmission paths, the data receiving apparatus comprising:

data receiving means for receiving, from each of a plurality of transmission paths

which are different from each other, a plurality of divisional distribution data files which are

restored to an original data file by synthesis; and

restoring means for synthesizing the plurality of received divisional distribution

data files to restore one moving picture data file,

wherein the divisional distribution data files are extracted from a private section

of a transport stream; and

wherein said divisional distribution data files can be restored into original data

when a predetermined number of packets are removed by said data receiving apparatus from a

group of packets generated by a data transmitting apparatus.

14.   (Previously Presented) A data transmission method for transmitting

moving picture data files through transmission paths, the data transmission method comprising

the steps of:

dividing one moving picture data file into a plurality of divisional distribution

data files which are restored to an original data by synthesis;

storing the divided divisional distribution data files in a private section of a

respective transport stream;

transmitting each of the divided divisional distribution data files to each of a

plurality of transmission paths which are different from each other;

receiving the plurality of divisional distribution data files from the plurality of the

different transmission paths;

extracting the divisional distribution data files from the private section of the

transport stream;

synthesizing the plurality of the received divisional distribution data files to

restore one moving picture data file; and

restoring said divisional distribution data files into said moving picture data file

when a predetermined number of packets are removed from a group of packets.

15.   (Previously Presented) A data transmission system for transmitting movie contents files through satellite transponders, the data transmission system comprising:

a data transmitting apparatus including data dividing means for dividing one movie contents file into a plurality of divisional distribution data files which are restored to an original data file by synthesis, and data transmitting means for transmitting each of the divided divisional distribution data files to each of a plurality of satellite transponders which are different from each other,

wherein the data transmitting apparatus stores the divided divisional distribution data files in a private section of a respective transport stream; and

a data receiving apparatus including data receiving means for receiving the plurality of divisional distribution data files from the plurality of the different satellite transponders, and restoring means for synthesizing the plurality of the received divisional distribution data files to restore one movie contents file,

wherein the data receiving apparatus extracts the divisional distribution data files from the private section of the transport stream; and

wherein said divisional distribution data files can be restored into said movie contents file when a predetermined number of packets are removed by said data receiving apparatus from a group of packets generated by said data transmitting apparatus.

16.   (Previously Presented) A data transmitting apparatus for transmitting movie contents files through satellite transponders, the data transmitting apparatus comprising:

data dividing means for dividing one movie contents file into a plurality of

divisional distribution data files which are restored to an original data file by synthesis; and

data transmitting means for transmitting each of the divided divisional distribution

data files to a plurality of satellite transponders which are different from each other,

wherein the divided divisional distribution data files are stored in a private section

of a respective transport stream; and

wherein said divided divisional distribution data files can be restored into said

movie contents file when a predetermined number of packets are removed by a data receiving

apparatus from a group of packets generated by said data transmitting apparatus.

17.   (Previously Presented) A data receiving apparatus for receiving movie

contents files through satellite transponders, the data receiving apparatus comprising:

data receiving means for receiving, from a plurality of different satellite

transponders, a plurality of divisional distribution data files which are restored to an original data

file by synthesis; and

restoring means for synthesizing the plurality of received divisional distribution

data files to restore one movie contents file,

wherein the divisional distribution data files are extracted from a private section

of a transport stream; and

wherein said divisional distribution data files can be restored into said original

data file when a predetermined number of packets are removed by said data receiving apparatus

from a group of packets generated by a data transmitting apparatus.

18.   (Previously Presented) A data transmission method for transmitting movie contents files through satellite transponders, the data transmission method comprising the steps of:

dividing one movie contents file into a plurality of divisional distribution data files which are restored to an original data file by synthesis;

storing the divided divisional distribution data files in a private section of a respective transport stream;

transmitting each of the divided divisional distribution data files to a plurality of satellite transponders which are different from each other;

receiving the plurality of divisional distribution data files from the different plural satellite transponders;

extracting the divisional distribution data files from the private section of the transport stream;

synthesizing the plurality of the received divisional distribution data files to restore one movie contents file;

storing said divisional distribution data files into said movie contents file when a predetermined number of packets are removed from a group of packets.